

**Patent Claims**

1. Energy supply unit (5) for a measuring device (1) for determining and/or monitoring a physical or chemical, process variable of a medium, characterized in that at least one voltage limiting unit (10) and/or at least one current limiting unit (15) is provided in the energy supply unit (5), wherein the voltage limiting unit (10) is embodied in such a manner that arising voltages remain below a value that leads to an explosion in an explosion-endangered area, and/or wherein the current limiting unit (15) is embodied in such a manner that arising currents and/or heatings associated therewith remain below a value that leads to an explosion in an explosion-endangered area.
2. Apparatus as claimed in claim 1, characterized in that at least one energy source (20) is provided in the energy supply unit (5).
3. Apparatus as claimed in claim 2, characterized in that the energy source (20) is at least one battery and/or at least one fuel cell.
4. Apparatus as claimed in claim 2, characterized in that, in the energy supply unit (5), at least one capsule unit (25) is provided, in which the energy source (20) is located.
- 30 5. Apparatus as claimed in claim 4,

characterized in that at least one voltage limiting unit (10) and/or at least one current limiting unit (15) are/is provided in the capsule unit (25).

6. Apparatus as claimed in claim 1 or 5,

5 characterized in that

the voltage limiting unit (10) is at least one drop resistance.

7. Apparatus as claimed in claim 1, 5 or 6,

characterized in that

10 the current limiting unit (15) is a plurality of drop resistances (16).

8. Apparatus as claimed in claim 1 or 2,

characterized in that,

at least one switch-on unit (30) is provided, which activates the energy

15 supplying of the measuring device (1) by the energy supply unit (5).

9. Apparatus as claimed in claim 1, 2 or 8,

characterized in that

at least one time limiting unit (31) is provided, which turns off the energy

20 supplying of the measuring device (1) by the energy supply unit 95) after an adjustable time span.

10. Apparatus as claimed in claim 1, 2 or 8,

characterized in that

25 at least one checking unit (35) is provided, which checks the energy source (20) regarding its energy content.

11. Apparatus as claimed in claim 1,

characterized in that

30 the energy supply unit (5) is a modular unit.